# **ECONOMY SECTORS** Industry • Agribusiness Sector Forestry • Construction Sector Trade. Expositions and Fairs Financial Market Transport and Motor Road Sector Communication ( Tourism

### INDUSTRY

By the early 90s, the accelerated growth of science-intensive industries defining the scientific and technical progress allowed positive results to be reached in the industrial complex development. The growth rate of production of electronic and computer products, and precise instrumentation exceeded 2.5–3 times that of conventional products in the machine-building sector.

However, in 1991–1995, the production plummeted and industrial structure was subjected to drastic changes due to shortfall of investments, wear and tear of fixed assets, reduced demand primarily for science-intensive products caused by the collapse of the FSU military and industrial complex.

The package of antirecession measures taken by the Government allowed the operation of the majority of industrial sectors to be stabilized by the end of 1995. Over the recent years, the entire industry and its leading sectors characterized by qualitatively new structure have been continuously increasing the production of commodities being in demand.

The economy performance for 1996–2004 provides evidence that the industry is on the upsurge both in export-oriented sectors (ferrous metallurgy, machine-building, chemical and petrochemical, woodworking industries) and in the sectors producing mainly for the domestic market (construction materials, consumer goods and food). The pre-crisis 1990 output was already reached in 1997 in some industries (ferrous metallurgy, forest, woodworking and pulp-and-paper industries). In 2000, the industry in general, managed to reach the pre-crisis level. The average annual growth rate of the output amounted to 10.5% in 1996–2000.





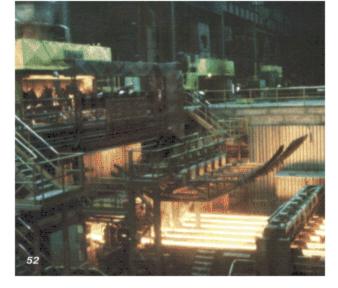
The industrial turnaround is mainly attributed to more professional marketing, certification of manufactured products, development of integrated links with the CIS countries, primarily with Russia, improvement of the industrial complex structure — development of processing, science-intensive, export-oriented and import-substituting industries.

The share of new types of products increased by 7% of the total output over the last five years and amounted to nearly 10.5% in 2004, while that of the certified products — by nearly 55.8%.

During that period, the industry embarked on restructuring through denationalization and privatization and establishment of interstate financial and industrial groups with enterprises of the Russian Federation and Baltic States.

Fuel and Energy Sector. The core of the fuel and energy sector is power engineering meeting the needs of the national economy by operating the unified energy system. The production potential of the Belarusian energy system comprises 35 Belenergo Group large and medium-sized public utility heat-power plants and 15 hydropower plants with the total capacity of 7.9 million kW, 11 small-sized heat-power plants with the total capacity of 15 thousand kWh, 7 thousand kilometers of the grid-forming high-voltage power transmission lines and over 2 thousand kilometers of district heating networks. In 2004, Belarusian power plants generated 31.2 billion kWh of electricity meeting nearly 80% of the country's needs.

Combined heat power plants make up over half in the structure of the Belarusian power plants, thereby defining specific consumption of the fuel equivalent for generation of power and heat (267 g/kWh and 169 kg/Gcal) corresponding to the best world analogs. Natural gas makes up 74% of the fuel consumption in the Belarusian power system.



The **Belarusian fuel industry** comprises oil and peat production and refining/processing enterprises, with the large-sized refineries being dominant in that sector. In 2004, 35 peat extracting and peat processing enterprises produced 2.0 million tons of peat which is used for production of peat briquettes and peat nutrient mixture for domestic and export markets.

Metallurgy. The metallurgical complex comprises 15 ferrous and 5 non-ferrous industries, the main products of which are certified in many countries and comply with the international standards. The largest enterprises include: National Unitary Enterprise Belarusian Steelworks (Zhlobin), the Public Joint Stock Company Mogilev Steelworks and Rechitsky Hardware plant. The production of rolled non-ferrous metal increased 2.8-fold in 2004 compared to that in 1995.

The **chemical and petrochemical industry** is one of the dominant sectors of the industrial complex. After a temporary recession of output, the industry has been steadily growing since 1995. The sectoral structure of the chemical and petrochemical industry is extremely diverse.

The chemical fiber/filament, mining and chemical (potash fertilizer production) and chemical and petrochemical industries are the leaders in terms of the size of the labor force and output. Enterprises of the above sectors produce 80% of the total output in the sector and are the main chemical products exporters.

71 enterprises and organizations within the state-owned Belneftekhim Group form the core of the petrochemical complex. The major lines of business of the Group are oil production, transportation and refining and sale of petroleum products; production of mineral fertilizers; chemical fiber and filament; tires; glass-fiber products; vanishes and paints and plastic goods. Over half of its products the Group exports to the external market. They are exported to more than 80 countries worldwide. In 2004, the annual foreign turnover of the Group amounted to USD 6 billion, including export — over USD 4 billion.

Belarus is not among the leading oil producers, however, domestic market needs are met partially by locally produced oil. The Association Belarusneft, being a part of the Group, produces approximately 1.8 million tons of oil a year. The Group comprises Gomel and Novopolotsk Druzhba oil-transportation enterprises which transferred 84.2 million tons of Russian oil to European countries in 2004, and also Production Association Naftan and Joint-Stock Company Mozyr Refinery.

33 enterprises supplying petroleum products and 522 gasoline stations (of them, 356 owned by *Belneftekhim* Group) contribute to the leading position of the Group in the Belarusian gasoline market.

The Production Association Belarusneft also provides a wide range of services, including two and three-dimensional seismic exploration, seismic well investigations, computer-aided processing and interpretation of the seismic exploration data, investigation and identification of potential oil and gas-bearing strata, assessment of porosity, oil saturation and effective capacity of rocks, geological and technological control over deep wells being developed.









The Production Association Naftan is the largest refinery in Europe, its design capacity for primary oil refining is over 24.0 million tons of oil a year. The PA Naftan produces a diverse range of petroleum products. The products are supplied to 18 countries of Europe and America.

Production capacities of the JSC Mozyr Refinery allow 16.0 million tones of oil a year to be refined. The refinery's products are exported to 12 countries of Europe and Asia.

The Gomel and Novopolotsk *Druzhba* oil transporters provide services for transporting oil to Belarusian refineries and also transfer nearly 80% of the export Russian oil to Germany, Poland, Baltic States, Ukraine and other countries.

The share of the chemical sector in the total Group's operations makes up over 55% and in the total exports — over 50%. The following chemical enterprises are leading in the Group:

- Mogilev Production Association Khimvolokno being the largest polyester fiber and yarn producer in Europe;
- Svetlogorsk Production Association Khimvolokno; Grodno Production Association Khimvolokno; Novopolotsk Production Association Polymir; Polotsk Production Association Steklovolokno;
- Production Association Belaruskaly (Soligorsk) the largest potash fertilizer producer in the world (the share of the enterprise makes up over 6.2% of the total world export of potash fertilizers);
  - Grodno Production Association Azot;
- Gomel Chemical Plant; Belarusian Tire Integrated Plant Belshina is a multi-production enterprise manufacturing 170 typical sizes of tires for cars, trucks, heavy-duty trucks, buses, trolley-buses, handling machinery, road-construction machinery, tractors and agricultural machinery; Public Joint-Stock Company Lakokraska; Borisov Plastic Plant.



Machine building and metal working are the leading industrial sectors in Belarus. In 1990, they accounted for 34.2% of the total industrial output and currently, despite the recession, they account for 20.0% (2004).

Traditionally, production associations and enterprises the sector comprises are subdivided into 3 groups: machine building; metal structures and products; and repair of machinery and equipment.

The sectoral structure of the first group (machine building) is rather diverse. It includes as follows: power engineering, mining industries, electrical industry, chemical and petrochemical engineering, machine-tool and tool industry, intersectoral industry, instrument making (including specialized plants of aviation, military, shipbuilding and radio industries), motor and bearing industry, tractor, agricultural machinery, road construction and municipal utilities equipment engineering, machine building for consumer goods and food industries and household appliances engineering. The leading sectors in the machine building are motor industry, instrument-making and electrical industries, radioelectronics, tractor and agricultural machinery engineering.

The machine-building enterprises developed over 300 new types of commercial products. They accounted for nearly 25% of the total output, 67% of products were certified. Truck tractors, side trucks, BelAZ mine dump trucks with a special body, mine cars, heavy-duty trucks and a number of modifications of special vehicles were started up by the Minsk Wheeled Tractor Plant.









The radioelectronics industry's enterprises produce subpackages of Satellite controllers for oil/gas complex of the Russian Federation, prototypes of new measuring instruments, counters, sensors, power supply units and automated-control cabinets were fabricated.

Enterprises of the electrical, mechano-optical and instrument-making industries launched the production of new types of power transformers, transformer substations, traction motors for trolley-buses, passenger elevators for transporting invalids, special elevators, transistor, variable-frequency electrical drives, etc.

By 2005, over 150 sector's enterprises received certificates of conformity of the quality system to requirements of the ISO 9000; 77 machine-building enterprises certified their quality systems. Minsk Bearing Plant and PJSC Atlant were the first among the enterprises in the sector to certify the system of environmental control according to ISO 14000 and over 20 other enterprises are preparing for certification. The Mogilev Plant Electrodvigatel has been granted the right to label the manufactured motors with CE mark. The production of the steel wire cord and wire for the motor industry at the Belarusian Steelworks is certified according to the QS9000, while Minsk Truck Plant received the certificate from the Switzerland SGS company that allowed it to build up its export potential.

The machine-building products account for a dominant share in the total exports of Belarus. The scientific and technical and production potential available in the sector allows for manufacture of products being in demand in the domestic and external markets. Currently, integrated measures are being developed aimed at promoting integration and incorporating leading Belarusian machine builders into the international corporate structures. More and more attention is being paid to commercialization and restructuring of machine-building enterprises (including attraction of foreign investors).



The Belarusian machine-tool industry comprises 28 enterprises and organizations including machine tool and tool plants, enterprises producing universal production accessories, press and foundry equipment, special designing bureaus, research and designing/engineering institutes. The range of machine tools being produced encompasses all groups according to the classification accepted in the machine-tool industry and allows technical requirements of enterprises in different sectors to be met. In accordance with the Program Machine Tools and Tools, new models of machine tools and tools have been developed: a new semiautomated circular grinding machine which serves as a basis for developing special models of automated machines for Belarusian bearing and truck plants, as well as for export to CIS and foreign countries.



A new basic model of the NC hydraulic sheet-bending press developing force of 630 kN has been engineered to manufacture parts from sheet metal and flats with high accuracy.

The jigs and process for manufacturing an interchangeable ring tool have been developed. To manufacture the tool, the shape-forming technique, that is, cross-wedge rolling allowing the metal recovery to be increased up to 0.95 is used; a special thermal treatment increases strength and durability properties of the tool by 20–25%. Manufacturing the tool locally will allow import of the tool to be stopped.





Motor Industry. Belarus specializes in manufacture of trucks. In the recent years, it has substantially increased the quality of manufactured trucks, coaches and special-purpose vehicles. The sectoral enterprises manufacture vehicles with a carrying capacity up to 220–280 tons and higher. The Minsk Automobile Plant alone manufactures over 100 modifications of trucks. This is the only enterprise in the CIS producing main-line trains conforming to the EURO-2 and EURO-3 requirements.





The motor industry comprises 44 enterprises and organizations producing trucks, trains for international freight traffic, dump-trucks, lumber carriers, allwheel drive vehicles with increased crosscountry capacity, heavy-duty high-carrying capacity mine trucks and dump truck trailers, loaders, self-propelled scrappers, trailers and semitrailers, motor-caravans, bicycles, motorcycles, vehicle components and spares.

In the line with the Program Belavtotraktorostroenie (Truck and Tractor Building), new models of BelAZ mine trucks been developed; new powerful models of 300–350 hp tractors have been manufactured; the processing plant UPSM-10 has been started up which is to be used for rehabilitation of wells 2,000–3,000 m deep to bring plugged oil producers back to operation. This plant opens up a new page in the export-oriented activity of the Belarusian machine-building industry.

Among the leaders in the sector are the following enterprises: Minsk Automobile Plant, Minsk Wheeled Truck Tractor Plant, Belarusian Truck Plant in Zhodino, Mogilev Truck Plant named after S.M. Kirov, Minsk Engine Plant, and Minsk Motorcycle and Bicycle Plant.

Tractor and Agricultural Machinery Industry. The sector operates 39 enterprises supplying equipment to the agribusiness sector, including the processors.

The leader in the sector — the Production Association Minsk Tractor Works is among the 7 world largest tractor exporters. It produces 300–350 hp universal row-crop tractors, 20–35 hp small tractors, 8–12 hp motor units and mini tractors, municipal loaders, mine and forest operation vehicles.

The dominant enterprises in the sector are also the Production Association Gomselmash and PJSC Lidselmash.









Construction, Road and Municipal Machine Building. The sector operates 24 enterprises producing the larger share of machines, equipment and tools needed by the road-building/maintenance companies, construction companies and utilities. The leaders in the sector are PJSC Amkodor (Minsk), the Unitary Enterprise Mogilevtransmash, Mozyr Reclamation Machinery Plant, Volkovysk Plant of Roofing and Construction/Finishing Machines.









Machine-Building for Food and Consumer Goods Industries. House-hold Appliances. Notwithstanding numerous offers to import equipment for the food and consumer goods industries, as well as household appliances, the Belarusian machine-building industry maintains a strong footing in this sector. The sector operates 21 enterprises. The JSC Atlant launched a line of household refrigerators and freezers of the new generation with modern design, and also automatic washing machines, a substantial share of which is exported.

The electronic industry comprises the Integral Research and Production Association (Minsk), world leader in IC manufacture, Planar Research and Production Concern of Precise Machine Building (Minsk), Monolit Vitebsk Production Association and a number of other enterprises producing high-tech products.

The electrical industry operates 44 enterprises. The largest of them include Brest Electric Incandescent Lamp Plant, Mogilevliftmash Plant the products of which operate in over 20 countries worldwide, including the Baikanur space launching complex.

The mechano-optical industry actually was an integral part of the defense complex in the past. This sector, still producing products developed for the military purposes, currently is increasing the range of products for civil use. The sector operates enterprises manufacturing scienceintensive products, including space products. The largest enterprise is the Belarusian Mechano-Optical Association (BelOMA) (Minsk).



The instrument-making industry operates 37 enterprises, of them, 7 played an important role in meeting the country's requirements in radiometric control devices after the Chernobyl nuclear disaster.

The radio-engineering industry comprises over 70 research and production associations, plants, research and designing/engineering institutes. The major range of products includes as follows: universal software and hardware systems, professional and home PC and various computerized workstations, electronic exchanges, television equipment, cellular telephone communication equipment, radio transmitters and receivers, etc. The sector's television enterprises Horizont and Vitvaz produce color TV sets having the same set of functions as those of the world-known foreign companies, including digital technology-based TV sets.





Consumer Goods and Textile Industries. 1,487 enterprises and production units employing 136.6 thousand people operate in the Belarusian consumer goods industry. The major types of products include textile, knitwear and garment, as well as leather foot-wear. The scientific and technical level of the Belarusian consumer goods industry is rather high. A sizeable fraction of the sector's products is competitive in the world market.

### **AGRIBUSINESS SECTOR**

The Belarusian agribusiness sector includes the following subsectors: farming industry (crop and animal husbandry), processing industry (food, flour-grinding and cereal, compound feed, primary flax processing), service sphere (production/engineering, reclamation, land management, scientific, agrochemecal, veterinary, construction, trade and other services). Animal husbandry, flax growing, cereal cropping, sugarbeet cropping and oil-seed cropping subsectors are prioritized in the Belarusian agribusiness sector.

For the last 4 years, reforming of the agribusiness sector resulted in the increased output of staple food products. Still large-size collective and state farms operate in the country. Adoption of the Land Code created an environment for an efficient use of farm lands. Currently, the loss-making farms are being more dynamically reformed and development of private farms and farmsteads is being promoted.

The agricultural sector makes up approximately 9–10% of the GDP. The size of agricultural and arable land for 1 Belarusian citizen is 0.9 ha and 0.6 ha, respectively. The state-owned agricultural land area is 7.37 million ha (80.9% of the total agricultural land area), the agricultural land owned by individuals is 1.34 million ha.

The farming industry specializes in producing animal husbandry products (milk, meat) and cropping flax and potato. Cereals, vegetables, sugar beet, rape, and fodder crops are intensively cultivated.





In 2004, Belarus produced an average of 65 kg of meat, 550 kg of milk and 300 eggs per capita.

Among the CIS countries, Belarus ranks third in flax production following Russia and Ukraine.

The processing industry comprises large meat, dairy, flavoring, fish, flour-grinding/cereal, compound feed and primary flax processing subsectors. It operates 4,701 enterprises and production units employing 131.8 thousand people. The above industries of the agribusiness sector were more efficient in adapting to the market environment in 1995–2004 than the farming industry.

### FORESTRY SECTOR

The forestry sector of the Republic of Belarus comprises subsectors and industries involved in reproduction, protection and conservation of forest resources and other useful forest factors (forestry), as well as harvesting, mechanical, chemical/mechanical and chemical processing of rawwood and waste (forest, woodworking and pulp-and-paper industries). The sector operates 4,671 enterprises and production units of various categories of ownership.

Forest resources are one of the major natural wealth of Belarus. Total wood stock is 1.3 billion m<sup>3</sup>. The forest fund covers an area of about 9.2 million ha. Owing to the target policy in the sphere of forest complex management, stocked forest areas and the total stock increased by 11.2% and 59.0%, respectively, over last 20 years. The forests of Belarus are state-owned.

The economic reform started in the forestry of Belarus since 1993. Its objective is to increase efficiency of forest resources utilization by improving the forestry management, liberalizing lumber and wood

products foreign trade, implementing market techniques of trading timber and developing export potential of the sector.

Belarusian forest woodworking and pulp-and-paper industry is rapidly developing. In 1996–2004, the sector increased output over 3 times. The woodworking industry (65.6% of the total output) and pulp-and-paper industry (18.4%) are dominant in the sector of the forest industrial complex. The furniture production is dominant in the woodworking industry — 50% of the output.

In 2004, the private sector accounted for 65.0% and 73.6% of the total number of enterprises and output, respectively.

The production capacity of the Belarusian forest, woodworking and pulp-andpaper industry allows not only the needs of the domestic market for the majority of products to be met, but also a substantial part of them (50–60%) to be exported.





### CONSTRUCTION SECTOR

The construction sector of Belarus comprises the civil engineering and a range of industries and production units servicing the construction operations, supplying logistics, providing research, designing/survey and pilot/designing support and training personnel. The construction materials and structures industry, as well as enterprises of the glass and porcelain and faience industry, machine building, metal working, forest and woodworking industries form the industrial core of the sector. The construction sector produces about 8% of the gross domestic product.

The organizations employing up to 50 people account for the largest share (84,1%). Over 3.6 thousand organizations are small-business entities employing an average of 17 people each.

Construction organizations have been subjected to more dynamic denationalization and privatization. In 2004, private contractors implemented about 72.0% of contractual works.

The housing construction is one of the priority spheres of the governmental social policy. Belarus ranks first among the CIS countries in commissioning housing. The Belarusian citizens are provided with the state support in the form of lump-sum non-refundable subsidies and soft loans to construct housing. Extra-budgetary funds are used extensively to finance housing.



In the last years, to improve and develop the housing construction, the sector changed over to constructing buildings of modern architectural and layout systems allowing for significantly improving consumer qualities of dwelling blocks, reducing construction cost due to lower material and energy input during construction.





The Belarusian architects, urban planners and designers who abandoned standardized designing and changed over to unique architectural designing were able within a short time to implement a number of projects creating unique architectural forms.

The material foundation of the construction sector is the construction materials and structures industry operating over 1.4 thousand enterprises and production units of various categories of ownership. Of them, 122 enterprises are on independent (industrial) balance accounting for over 70% of the output.

The sector's enterprises produce over 170 types of construction materials and products. The capacities of construction materials and structures manufacturers allow domestic needs to be fully met and the products to be supplied to the CIS and foreign countries. Belarus exports glass, cement, walling, roofing, facing materials, etc. Locally produced materials and products allow buildings and structures to be constructed meeting the European standards in terms of durability and esthetics.

The leaders in the sector are such enterprises as Gomelsteklo (ranks third in production of polished glass in the world), Keramin (ceramic and facing tiles), Krovlya (roofing materials), and Belarusian cement plant, etc.

### TRADE

Trade and public catering make up 9.8% in the sectoral structure of the gross domestic product.

Intermediate management links, that monopolized operations, have been mainly eliminated in the trade sector to establish leasing and jointstock companies and also collective enterprises. Wholesale depots are being transformed into public joint-stock companies. The main restructuring schemes in the retail trade included corporatization and sale of outlets at the auctions, and buying-out of the leased property by work collectives. Nearly 28.3 thousand outlets with the shop floor area of 2.8 mln m<sup>2</sup> and 10.0 thousand public catering enterprises have a capacity to service 687 thousand customers operated in the Belarus in the retail business as of the beginning of 2005.

Wholesale food markets are established in Regional centers to supply cities and industrial centers. Minimarkets and small retail outlets for wholesaling and retailing agricultural produces to the communities, trade and public catering companies are established in other towns of Belarus.

# Expositions and Fairs

Annually, Belarus hosts nearly 100 international specialized expositions, regional exhibition activities, international and specialized fairs.

The international specialized expositions and specialized fairs are held by the National Exposition Center BelEXPO, Exposition Association EXPOFORUM, Chamber of Commerce and Industry, Private Joint-Stock Company MinEXPO and a number of other organizations.

Belarus annually hosts international book and periodicals fairs, consumer goods, machinery and equipment fairs for the consumer goods industry, fairs of consumer goods, medical equipment, construction materials and equipment, furniture, materials and components for furniture production, equipment and industrial processes, equipment for the farming industry, etc.





Annually, expositions and fairs relating to the major types of goods and services are held in the republic. Such expositions and fairs as BELTEXLEGPROM, PROD-EXPO, MEBEL, AVTOSHOU, TURBIZ-NES and others are well known in the country and abroad with involvement of up to 300 companies worldwide.

The regions mainly host universal and multisectoral fair-expositions. Regional exhibition activities are held by the National Exposition Center BelEXPO and Regional divisions of the Belarusian Chamber of Commerce and Industry.

National expositions and national stands of the Republic of Belarus are annually presented at different world expositions (fairs), including in Germany (Hanover), Great Britain (London), Russia (Moscow), Hungary (Budapest), China (Shang-hai) and India (Delhi).



# The largest international fairs in Belarus to be held in 2005

- RECREATION-2005/14.4.2005—17.4.2005 8<sup>th</sup> Spring Fair of Tourist Services tel. (+375-17) 234-11-92
- BELTEXLEGPROM-SPRING/19.4.2005–21.4.2005
   16<sup>th</sup> International Fair-Exposition of Consumer Goods and Textile Products Wholesale tel. (+375-17) 234-00-56
- MASS MEDIA IN BELARUS/3.5.2005–6.5.2005
- MILEX-2005/17.5.2005–20.5.2005
   3rd International Arms and Military Equipment Exposition tel. (+375-17) 268-68-54
- DESIGN-EXCHANGE-2005/14.6.2005-17.6.2005 3rd International Specialized Exposition tel. (+375-17) 268-68-54
- WEEK OF FASHION FOR HEALTH/8.9.2005–10.9.2005 International Specialized Exposition tel. (+375-17) 234-30-09
- SPORTEXPO/8.9.2005—10.9.2005
   2nd Specialized Exposition
   tel. (+375-17) 234-30-09
- HUNTING AND FISHING/16.9.2005–19.9.2005 International Specialized Fair-Exposition tel. (+375-17) 234-24-13
- PACKAGING WORLD/27.9.2005–30.9.2005
   6th International Specialized Exposition
   tel. (+375-17) 286-78-54
- TOURBUSINESS/23.11.2005–26.11.2005 12<sup>n</sup> International Specialized Exposition tel. (+375-17) 234-11-92

### FINANCIAL MARKET

The law On National Bank and law On Banks and Banking form the legislation framework for operation of a two-tier banking system in Belarus. The National Bank is in charge of regulating and coordinating monetary relations, stimulating development of financial institutions, issuing money, and regulating foreign banking activity. Commercial banks effect active and passive banking operations at the cost of own and borrowed funds, keep free reserves on accounts with a National Bank, independently define the procedure of attracting and using resources. Transactions of sale and purchase of resources may be effected both in Belarus and abroad. Banks with 100% foreign capital may be formed. Foreign legal entities may have currency and BYR accounts with the authorized banks in Belarus.

The principal guidelines of the monetary policy annually designed by the National Bank and approved by the President of the Republic of Belarus are the most important document regulating operation and development of the monetary sphere, currency market and banking sector.

Since 2000, Belarus pursues a rather tight monetary policy which allowed inflation to be curbed. Positive level of real interest rates and relative stabilization of the BYR market rate contributed to the balanced supply and demand in the currency market.

A central component of the monetary policy in 2001–2004 was the foreign exchange policy oriented at attaining smooth and predictable dynamics of the Belarusian ruble exchange rate by pegging it to the Russian ruble.





In recent year, the National Bank has embarked on a number of actions to liberalize the currency market. New Rules of foreign exchange transactions related to capital flow and regulating attraction of credits and loans not only in cash, but in the form of currency values, transactions of securities issued by nonresidents of the Republic of Belarus have been adopted.

The Bank Code of the Republic of Belarus, which was put into effect, allowed the regulatory and legal framework of the prudential supervision and banking activity regulation to be revised.

Totally, 32 commercial banks operated in Belarus as of 1.1.2005. The largest of them are Joint-Stock Saving Bank Belarusbank, Joint-Stock Commercial Bank (JSCB) Belagroprombank, JSCB Belpromstroibank, Priorbank, JSCB Belvnesheconombank and Belinvestbank. The financial banking network comprises 463 bank branches. 12 residential missions of foreign banks and monetary agencies of Russia, Baltic States, Germany and Poland operate in Belarus.

The residents of the Republic of Belarus form the major share of the resource base of the Belarusian banks (90.5% as of 1.1.2005).

The interbank credit market is rapidly developing. Since 1998, banks effect interbank settlements using the BISS computerized system.

The law On Securities and Stock Exchanges spells out basic principles and procedures of forming the stock market and protecting foreign investors. The primary securities market has been formed in Belarus. Since 1998, the government securities and the National Bank securities are traded in the secondary market through the electronic trading system of the Belarusian Currency and Stock Exchange. The National Bank Central Depositary operates in the clearing system.

### TRANSPORT AND MOTOR ROAD SECTOR

Belarus has an exclusively beneficial geographic location within the transeuropean system and is a link and a shortest way between East and West. Due to this, the transport and communication's added value of the GDP accounted for 9.8% in 2004 (ranking second after the industry). This defines their significant role in the economy of Belarus.

Railway, motor, air, river and pipeline modes of transport provide transportation services. In addition, the urban electric transport (tram, trolley-bus and underground (in Minsk)) is sufficiently developed.

The railway transport dominates in the country's transportation system. The automobile transportation is also strongly established both in the Belarusian transportation system and in the European transportation services market.

Railway Transport. The Belarusian Railway has an operational length of 5.5 thousand km. The most important railway junctions are located in Minsk, Molodechno, Orsha, Baranovichy, Grodno, Volkovysk, Lida, Lunitets, Brest, Gomel, Zhlobin, Kalinkovichy, Mogilev, Osipovichy, Krichev, Vitebsk and Polotsk which serve the respective centers of the Belarus and operate a long 2–6 directions.

The double-track electrified railway Brest — Minsk — Russian border, 894 km in length, on which freight trains may move with the speed up to 100 km/h and passenger trains — up to 160 km/h provides favorable conditions for freight and passenger traffic.

The BR freight turnover accounted for 93.3% and passenger turnover — 57.8% of the total turnover of all modes of transport in 2004.



The major traffic flows run to the east—
to Russia and Asia-region countries,—
to the north— to the Baltic Sea ports,—
to the west— to the European countries—
and to the south— to the Black Sea region.

The western border railway infrastructure is developed to adapt different track gauges.

To provide a complete range of transportation services, the BR border crossing points are provided with the necessary equipment to process a complete range of the cargo being transported. The main transferring facilities are located in Brest and Grodno railway junctions.

Brest transshipment area is one of the most important within the freight traffic system of the main line and the Brest Severny terminal plays a pivotal role. Here the cargo is transferred from cars with the track suitable for the West European track gauge of 1,435 mm to the cars running on the 1,520 mm track gauge.





Great importance is attributes to container traffic — both transit and export/import, and domestic. The stations are provided with 20 container terminals to handle large containers, 7 of them (in Baranovichy-Centralnoye, Brest-Severny, Vitebsk, Kolyadichy (Minsk), Lida, Pinsk, Orsha-Vostochnaya) are equipped with facilities to handle not only 20-foot, but also 40-foot containers, as well as 19 terminals for handling medium containers.

Significant attention is paid not only to modernizing engineering facilities of the terminals, but also to improving existing services provided to the cargo owners to ship goods "from door to door". Currently, the goods are delivered to and from the majority of terminals by the BR's motor transport by the principle "railway station-consignee warehouse".

The BR has a large park of large and medium containers to meet to the maximum the needs of the Belarusian shippers.

The Belarusian Railway efficiently cooperates with Railways of Russia, Poland, Germany and Lithuania in implementing a number of projects of shipping cargo by specialized container and freight trains which move according to the special approved schedules significantly reducing the shipment time and are provided with the appropriate engineering and information support. The goods from Japan, South Korea and China maritime ports are shipped by the Transsiberian route 2 times faster by such trains than by shipping over the Indian Ocean. The trains efficiently operating in the transportation services market are as follows: Berlin — Brest — Minsk — Moscow Eastern Wind specialized container train running regularly since October 1995 (the problem of extending its route to Alma-Ata and Nakhodka has been solved); the Germany — Poland — Belarus — Russia Russian Express shuttle train running daily since 1 September 1999; Commonwealth container train running since 20 February 2001 along the route Rotterdam port — Bremerhaven port — Brest — Bekasovo.

The BR has also an experience of shipping refrigerator containers by organized trains along the route Rotterdam — Berlin — Warsaw — Minsk — Moscow/Saint-Petersburg. The trial container train from China to Germany loaded with 40-foot containers ran through China, Kazakhstan, Russian, Belarusian, Polish and German railways. Since March 2002, the specialized container train *Mongolian Vector* began to run between Brest — Naushky — Ulan Bator twice a month (days 15 and 30).

To reduce the time of delivering containers being transported from third to third countries (except CIS countries), the Protocol of streamlined procedure of customs clearance of transit goods transported by the railway within the boundaries of the union state was signed in the late 2001 between the Russian and Belarusian Customs Committees within the framework of the Russia-Belarus Customs Union.

The Belarusian Railways jointly with Russian and Lithuanian Railways arrange transportation of goods by container trains from Scandinavian countries along the route Klaipeda — Kaliningrad — Vilnius — Minsk — Moscow.

To speed up handling of the organized trains and preliminary agree the regime of the customs control of goods, the Brest railway junction has introduced the system for receiving a preliminary information from forwarders and a handing-over railway station of the Polish National Railways, and also offers computerized translation of shipping, negotiable and accompanying documents.

The Council of Ministers of the Republic of Belarus has approved the Program of Belarusian Railway Development up to 2010. It provides for as follows: developing domestic production facilities for rolling stock repair; introducing novel energy saving technologies; placing orders with the Belarusian industrial enterprises to load to the maximum their capacities for production of components, spares and materials related to transportation operations; import substitution; improving the tariff policy; as well as replacing the rolling stock; developing and implementing advanced processes. The BR is developing relations most intensively with the Russian railways. To increase freight traffic between Russia and Belarus, on June 5 2000 the Russian Railways and Belarusian Railways signed the Agreement On Freight Rates for Communication Between the Russian Federation and the Republic of Belarus providing for the use of the BR rates for international freight shipment through Russian Railways. On January 28<sup>th</sup> 2002, the Agreement On Procedure of Regulating Railway Rates for Communication between the Russian Federation and the Republic of Belarus was signed in Moscow.

The Belarusian Railways developed large enterprises (wagon depots) intended primarily for repair and maintenance of cars during operation. These wagon depots include Molodechno, Osipovichy, Vitebsk, Baranovichy and Lida.

For the Belarusian Railways to integrate into the European transportation network, one of the priority spheres is its cooperation with the international transportation agencies, namely, the Railway Transport Council of CIS and Baltic Countries, Intergovernmental Organization of Railways Cooperation, International Union of Railways, Europe Train Forum, and Transsiberian Traffic Coordination Council.

Since 1996, Belarus is the rightful member of the European Conference of Transport Ministers. The Belarusian Association of International Motor Transportation Carriers (BAIMTC) and Belarusian Association of International Forwarders (BAIF) have been established and efficiently operate in Belarus.

The **motor transport** plays an important role in the Belarusian economy. In 2004, it accounted for 35.8% of the total volume of freight traffic and for 6.2% of the freight turnover by all modes of transport (except pipeline transport).



As of the early 2004, 177.0 thousand trucks operated in Belarus, of them, 61.3% (108.5 thousand) are operated by companies of various categories of ownership and 38.7% (68.5 thousand) are privately owned by citizens.





Mainly motor transport companies reporting to the Ministry of Transport and Communications of the Republic of Belarus and Minsk Municipal Executive Committee provide bus passenger service along the scheduled itineraries of urban, commuter and intercity lines. Over 48 thousand runs are made and 4.3 million passengers are serviced per day on the average. The passengers are serviced at 38 bus terminals, 110 bus stations and 115 bus booking offices.

32 bus companies, 89 mixed and 9 taxi companies operate the passenger service motor fleet. Public transport operates on 4,290 itineraries as of 1.1.2005; urban and commuter — 3,606, intercity — 623 and international — 61.

Over the last years, transit freight traffic through the Republic of Belarus increased. It has become a strategically important factor for the Belarusian economy. Carriers from over 50 states perform motor transit freight traffic through Belarus. Currently, the Republic of Belarus is the party to nearly 40 Agreements On International Motor Service with 38 states.

In 2003, Belarusian carriers made over 600 thousand trips to 45 countries of Europe, CIS and Baltic States. 5.7% of state-owned legal entities, 50.8% of private legal entities and 43.5% of self-employed carriers were involved in international motor traffic.

Motor Road Sector. Belarus has created a nearly optimum extensive network of motor roads allowing a year-round service to be maintained actually with all settlements. The length of the public road network is 81.2 thousand km. National roads play an important role in the road network (length — nearly 17 thousand km) through which over 70% of all cargo is transported.

The law of the Republic of Belarus On Motor Roads (passed in 1994) defines legal, economic and organizational framework of motor road management. The Belavtodor Department of the Ministry of Transport and Communications performs executive, supervisory, regulatory and other functions in the road management sphere.

Republican motor road companies Magistralavtodor and 6 Avtodors (one in each Region) act as customers in the road economy management structure.

The State Program Roads of Belarus for 1997–2005 is being implemented in the road sector prioritizing the following: improving transportation and operation conditions of existing roads; ensuring stable transportation links; further developing international transportation corridors; restructuring most heavy-traffic sections of roads and bridges being in emergency condition.

Geographically, the Republic of Belarus is on the crossroad of main transportation routes linking the West-European states with the East, regions of the Black Sea coast with the countries of the Baltic Sea. 2 transeuropean transportation corridors run through Belarus and are designated as II (East-West) and IX (North-South) according to the international classification, with the branch IXB.

The highway M-8/E-95 — Russian Federation border — Vitebsk — Gomel — Ukrainian border — runs 456 km through Belarus from north to south and is a section of the Crete IX transportation corridor connecting Finland, Lithuania, Russia, Belarus, Ukraine, Moldova, Romania, Bulgaria and Greece. The IXB branch of this corridor — Gomel — Minsk — Vilnius — Klaipeda — Kaliningrad — runs 468 km through Belarus and provides access for the cargo owners to specialized maritime ports of Klaipeda, Ventspils and Kaliningrad from Eastern Ukraine and Central Russia.

The rehabilitation of the Minsk belt road, being the IXB branch of the Crete transportation corridor, became the most important road-construction project in terms of the economic value and complexity of engineering solutions. Belavtodor company rehabilitated this motor road into a modern triple-triple thoroughfare over the shortest time possible. 29 bridges and elevated roads, 25 underground and above-ground passages were built on the road. For the purpose of traffic safety, all crossings are made at different levels, the road is equipped with elements of route orientation, antidazzling structures, and noise shields. In addition, the Minsk belt road is equipped with the computer-aided management system including weather stations, traffic intensity sensors, and truck weighing points. All this allowed safe, comfortable and esthetically attractive road environment to be created for passage of ever increasing traffic around and inside the Belarusian capital.

The M-1/E-30 highway — Brest — Minsk — Russian Federation border — is the section of the Crete II corridor, Berlin — Warsaw — Minsk — Moscow — Nizhny Novgorod, connecting Germany, Poland, Belarus and Russia. This transport corridor is considered by the European Union as the high-priority corridor among Crete corridors due to important traffic between East and West. It runs through Belarus 609 km.

Since 1994, the M-1/E-30 highway reconstruction project is underway. The road modernization on the section from Ivatsevichy to Minsk with the length of 234 km was completed in 1998. The road modernization costs amounted to USD122 million, of this amount USD 50 million were granted as credit by the European Bank of Reconstruction and Development and USD72 million were appropriated from the national budget. In accordance with the loan agreement conditions and Resolution of the Belarusian Government, the vehicle owners are charged the toll for using this highway since 1 November 1996.

In 1998, the reconstruction of the Borisov-Orsha section of this highway 123 km in length was completed with funding from the national budget. In 1999, the modernization of this road was continued at the section from the Minsk bypass to Borisov with the length of 35 km.

Currently, M-1/E-30 highway is being modernized along two strategically important sections — Telmy-Kozlovichy (exit from Poland) 19 km in length and Orsha-Redky (exit from Russia) 40 km in length. A new bridge over the river Western Bug at the border check point Kozlovichy-Kukuriky was built on this highway jointly with the Ministry of Transport and Maritime Economy of the Republic of Poland in 2004.

Air Transport. The Republic of Belarus has the network of airports linking the country with over 30 CIS cities and the major national airport — Minsk-2 International Airport — offers flights to a number of cities of Europe, Asia, America and Africa.



The Belarusian civil aviation operates the fleet including 14 types of aircraft and comprising over 80 airliners.

Since 1997, the largest national company *Belavia* is the member of the International Air Transport Association (IATA). It accounts for nearly 90% of all passenger services. The company provides regular service to Austria, Great Britain, Germany, Egypt, Israel, Ireland, Italy, Cyprus, Latvia, Poland, Turkey, Czech Republic and Sweden. The *Belavia* company is integrated into the modern European air transport structure and has commercial agreements with 48 air companies.

The Transaviaexport Company specializes in freight traffic to the countries of Europe, South America, South-East Asia and Middle East.

Water Transport. The water transport is an integral component of the transportation sector of the Republic of Belarus providing freight and passenger traffic through domestic waterways (nearly 2 thousand km in length) to riverside settlements and cargo handling in 10 river ports located in the basins of all navigable rivers of Belarus, namely, the rivers of Pripyat, Dnieper, Sozh, Berezina, Neman and West Dvina.

The international waterway Bug — Pripyat — Dnieper — Black Sea runs through Belarus to transport diversified cargo. The river ports of Gomel, Bobruisk, Brest and Mozyr are provided with a rail access and are equipped to handle the general cargo. The current Belarusian river fleet operates modern transport and special-purpose vessels.

The ports are equipped with high-performance floating and gantry cranes and cargo mechanized lines for operational cargo handling. The water transport companies operate a sizeable fleet and are ready to cooperate in the sphere of freight traffic on the rivers of Europe.

The water transport structure comprises shipbuilding enterprises building and repairing vessels and other floating vehicles. Shipbuilding yards and shipyards operating modern production facilities produce as follows: steel vessels of different designation, deadweight up to 3,000 t; aluminum hydrofoil passenger boats with capacity of 53 passengers; non self-propelled vessels for transportation of heavy machinery and equipment, bulk and other cargo to difficult-of-access areas.

Since 1999, the Rechitsa shipbuilding yard and shipyard has been building the first Belarusian seagoing craft. The Republic of Belarus, being a landlocked country, develops its own merchant marine with an aim of exporting goods to CIS and foreign countries. Pipeline Transportation. The national pipeline network comprises gas pipelines and oil pipelines with service pipes connecting Belarus with Russia, Ukraine, Lithuania and Poland.

Natural gas is imported from Russia by long-distance lines 1,700 km in length through Belarus to Lithuania, Ukraine and West European countries. 6 compressor plants operate in Belarus.

The total length of pipelines running through Belarus is over 3,000 km. Russian crude oil is imported through them to the Belarusian refineries and is delivered in transit to the West European countries. The pipelines are high-capacity and high-performance systems, namely, Druzhba (Friendship) (Kuibishev — Unecha — Mozyr — Brest, Unecha — Polotsk, Mozyr — Brody — Uzhgorod, Polotsk — Ventspils); and Surgut — Polotsk. The Druzhba pipeline supplies crude oil to Polotsk, Mozyr and Mazheikyai (Lithuania) refineries. This pipeline comprises main pipeline systems — Unecha — Polotsk, Polotsk — Ventspils, Polotsk — Birzhai — Mazheikyai — with a complete technological cycle.

V.V. Pinigin

## Additional information:

- Republican Unitary Enterprise Belarusian Steelworks http://www.belsteel.com
- Belneftekhim Group http://www.belneftekhim.by
- Republican Unitary Enterprise Production Association Belorusneft http://www.beloil.gomel.by
- PJSC Naftan http://www.naftan.by
- PJSC Mozyr Naftan http://www.mnpz.by
- Republican Unitary Enterprise PA Belaruskaly http://www.kali.by
- PJSC Mogilevkhimvolokno http://khimvolokno.by
- PAPolymir

http://www.polymir.by

- PJSC Grodno Khimvolokno http://www.grodno-khim.by
- RUE Svetlogorsk Production Association Khimvolokno http://www.sohim.gomel.by
- PJSC Belshina

http://www.belshina.net

- RUE Minsk Automobile Plant http://www.maz.com.by
- Mogilev Truck Plant named after S.M. Kirov http://moaz.by.com

 PJSC Amkodor http://www.amkodor.by PJSC ATLANT http://www.atlant.by SPA Integral http://www.integral.by Planar State Research and Production Concern of Precise Machine Building http://www.planar.by RUE Mogilev Elevator Machine-Building Plant http://www.liftmach.by Belarusian Mechano-Optical Association (BelOMA) http://www.belomo.by PJSC Horizont http://www.horizont.by RUPE Vityaz http://www.vityas.com Ministry of Agriculture and Food of the Republic of Belarus http://mshp.minsk.by · Ministry of Forestry of the Republic of Belarus http://www.komleshoz.org Ministry of Architecture and Construction of the Republic of Belarus http://www.minstroyarch.gov.by BelExpo National Exposition Center http://www.belexpo.by Expoforum Exposition Enterprise http://www.expoforum.by Belarusian Chamber of Commerce and Industry http://www.cci.by · Ministry of Finance of the Republic of Belarus http://ncpi.gov.by/minfin · National Bank of the Republic of Belarus http://www.nbrb.by · Belarusian Railway

Ministry of Transport and Communications of the Republic of Belarus

· BELAVIA National Air Company of the Republic of Belarus

 PA Minsk Tractor Works http://www.tractors.com.by

http://www.selmash.gomel.by

PA Gomslemash

 PJSC Lidselmash http://www.lsm.hl.ru

http://www.rw.by

http://www.mintrans.bv

http://www.belavia.by

### COMMUNICATION

### General

The national governmental body administering the communication sector is the Ministry of Communication and Informatization of the Republic of Belarus.

12 organizations including 3 public joint-stock companies (JSC) and 241 communication centers report to it.

The following enterprises of supply equipment and devices to the sector: Gomel Radio Manufacturing Plant and Mogilev Plant Zenit, Molodechno Plant Sputnik, Minsk Association of Computer Engineering, PJSC Svyazinvest, and Telemix Limited Liability Company.

Subject to the Decree of the President of the Republic of Belarus (No. 17 of 14 July 2003), Regulation On Licensing Business in the Communication Sector approved by the Resolution of the Council of Ministers of the Republic of Belarus (No. 1387 of 20.10.2003), the Ministry of Communication and Informatization is in charge for issuing licenses to conduct business in the communication sector.

Foreign investments for developing the communication sector are attracted by predominantly establishing joint ventures, with the state-owned organizations of the Ministry of Communication and Informatization being one of the promoters. 8 enterprises with foreign investments incorporating organizations reporting to the Ministry of Communication and Informatization were established in the Republic of Belarus: Belarusian-Netherlands JV Belcel, Ltd., Belarusian-Swedish JV Eniro Belfakta, Ltd., Belarusian-US JV Cosmos TV, Belarusian-US JV BA International, Ltd., Belarusian-Russian-Switzerland JV MAK Bellaminat, Belarusian-Cyprus JV Mobile Digital Communication, Ltd., Belarusian-British JV Business Network, Ltd. and Belarusian-Russian Mobile TeleSystems, Ltd.



The Belarusian Communication Administration is a member of a number of international agencies, namely, the International Electrical Communication Union (IECU), Universal Postal Union (UPU), International Space Communication Organizations (Intersputnik, Eutelsat, Inmarsat), Regional Communication Community (RCC), and it also has the status of the authorized body in the Intelsat.



# International and Trunk Communication

Prior to 1992, the international telephone network actually was nonexistent in Belarus. The outgoing international calls from Belarus beyond the CIS were dialed up through the Moscow International Automatic Exchange. Trunk exchanges in Brest and Vitebsk required urgent modernization, since subscribers in those regions could not get automatic international communication services.

To create a reliable communication system using state-of-the-art technologies and most fully meeting the needs in communication services, the Program of Development of Communication Facilities in the Republic of Belarus up to 2000 and Program of Development of Communication Facilities in the Republic of Belarus in 2001-2005 prioritized the major targets. One of the targets was to modernize the electrical communication network by changing over from the analog to digital equipment, expanding it and providing to the subscribers a wider range of modern and high-quality communication services. To address the priority targets, the MIC received the target loan (USD 38.8 million) from the European Bank for Reconstruction and Development and since the end of 1992 it concluded a number of contracts for supply and commissioning of the electrical communication equipment. The international and trunk electrical communication networks have been technically refurbished and modernized by replacing analog exchanges with digital, such as EWSD, AXE-10, Alcatel-1000, C-12, M10C and ARE-13 interlinked by digital communication channels using SDH equipment.

The optical-fiber communication line (OFCL) using the synchronous digital hierarchy equipment of STM-4 level (622 Mbit/s) and STM-16 level (2.5 Gbit/s) connects Minsk trunk exchanges with Regional centers. The Unified Maintenance Center has been created to control the condition and operation of the international and trunk switched telephone network. The digital electrical communication network has been developed to integrate earlier individual services for transmission of speech, text, data and images into the unified integral servicing network. Services of this network are provided to 34 states.

The channel-wide signaling system No.7 is being systematically implemented at the international, intercity and local levels. This communication is established along 16 foreign and all trunk directions, thereby allowing to organize forward and through international channels. Forward digital streams to 27 foreign states have been organized. Outgoing international telephone calls are dialed up through 2 automatic international telephone exchanges (AITE). Forward communication channels link with the major economically developed countries worldwide. 99.7% of subscribers of public networks may have access to automatic international and trunk communication network.

The transeuropean optical-fiber communication line (OFCL) Warsaw — Brest — Minsk was commissioned in 1997. Digital streams are
directed to Czech Republic, Slovenia, Slovakia, Switzerland, Austria,
Germany, the Netherlands, Great Britain and Latvia. The optical-fiber zone
communication lines using the digital system equipment with 34 Mbit/s
and 155 Mbit/s have been built. The STM equipment-based optical-fiber
communication line between Belarus and Russia has been commissioned — this is the fifth international line using the synchronous digital
hierarchy (SDH) equipment. The line provides the short-cut from Russia to
the countries of Central and East Europe, and from Belarus to Kazakhstan,
Central Asia and Caucasus republics. A similar optical-fiber cable line provides connectivity to all neighboring countries. In addition, this allowed the
telecommunication interstate services to be substantially upgraded to a
higher quality and all types of modern services to be provided — telephony,
data transmission, audio and video information.

To enhance durability of the synchronous digital transmission systems being in use, the primary Belarusian network using the ring communication circuits has been developed, the ring of main line Minsk — Vitebsk — Mogilev — Bobruisk — Minsk using the STM-16 equipment has been built and the SDH main network using the existing equipment MSH-31 and MSH-11 has been rehabilitated. The rings Minsk — Brest — Gomel — Minsk and Minsk — Slonim — Grodno — Oshmyany — Minsk have been constructed. Following the principles of the international cooperation in the telecommunication sphere and using favorable geographical position, Belarus has become a party to the international projects TEL/TET, TAE, ITUR using national synchronous network lines as components of these projects.

The TEL project (Trans-European Communication Line) links the countries of the Central and Eastern Europe. The TET project connects this region with West and South Europe, Middle East and North Africa, as well as with USA and Canada through the TAT transatlantic cable. Under the TAE project (Trans-Asia-European Communication Line), the optical-fiber communication line links Asia and Central Europe. Upon implementation of the ITUR project (Italy-Turkey-Ukraine-Russia), Belarus has obtained forward digital channels to Italy.

The superimposed digital network is built based on the Siemens EWSD digital switching facilities and currently covers the Minsk area all Regional and 18 District centers. The ring interstation communication of the Minsk municipal telephone network is in operation to network the municipal automatic exchanges through the OPCL, as well as international, trunk exchanges and the SDN. The group telephone communication and videoconference communication services are provided. The Direct Call service to link with the USA, Canada, Great Britain, the Netherlands, Singapore, Poland, Germany, New Zealand, Finland, Hungary and Slovenia are offered. A complex of satellite-communications earth stations to provide a telephone communication, data transmission and exchange of television programs with Canada, India, Israel, Kyrgyzstan and the USA has been commissioned. A modern powerful high-rate main network has been created. The equipment of synchronous digital hierarchy of the STM-1, 4, 16 level were used to build the main and 30% of intrazone lines.

The length of international communication channels is over 20 ths channel-kilometer, more that half of them being OFCL (63%).

The total capacity of automatic trunk exchanges exceeded 80 thousand channels, with the electronic system making up 85%.

# Urban and Rural Telephone Communication

The turning point of development and modernization of urban and rural telephone networks was digitization and creation of ring system of interstation communications by laying optical-fiber communication lines. The secondary telephone switched network operates digital switching systems of the EWSD, AXE-10 and S-12 at the international and trunk levels. To improve the quality of services, the Minsk Special Electronic Communication Center (SECC) has been refurbished using the EWSD equipment, and, as a result, the Center is able to provide an engineering support to the intelligent network services and Internet integral services.

The total capacity of the local telephone network exceeded 3.3 million numbers, of them, 2.7 million in urban telephone networks and 611 thousand in rural telephone networks. Over 4 thousand automatic exchanges are in operation, of them, 51% are digital. 20.1 thousand payphones are in operation. Obsolete payphones are replaced with new generation of AGAT-07 payphones providing international and trunk communication. Since 2000, advanced telephone cards Eurochip have been introduced. This allowed the customers to have access to the international network dialing up from the payphones. In addition, Belarusdirekt provide services by using service telephone cards (STC) along 10 directions.

Out of 100 residents, 37.8 urban residents and 22.9 rural residents have their own telephones. This indicator ranks Belarus first among the CIS countries. The coverage of the home communication direct service (HCDS) allowing the visitors coming to the republic to call to their country by the prepaid card is expanding. 19 HCDS directions are opened. The computerized system of billing for electrical communication services and the system of technical accounting and certification of line structures, centralized repair bureaus and information services have been designed and are being introduced.

## Television and Sound Broadcasting. Wire Broadcasting

25 powerful television stations and 22 repeaters provide operation of the television broadcasting network. They mount and operate 140 television transmitters of different power distributing the programs of the First National Television Channel, ONT, Lad, STV, Russia, NTV and 19 private programs.





212 radio broadcasting transmitters of different frequency bands (including 79 transmitters operating at 87.5–108 MHz) translate the following programs: First National Channel of Belarusian Radio, Culture, Radius FM, Capital, and also Regional broadcasting and 17 commercial programs. Belarusian programs are broadcast to the countries of West Europe, namely, France, Great Britain, Germany, Switzerland, Italy, Austria, Poland and others, as well as to the Russian Federation, Ukraine and Baltic States.

Broadcasting programs are distributed through radio relays, the total length of which is over 3.5 thousand km. Totally, 74 relay stations are in operation. 624 radio relay centers operate in the Belarus. They broadcast to 3,300 thousand radio receivers. The total length of wire broadcasting lines is 85.5 thousand kilometers.

# Land Mobile (Cellular, Trunking, Radiopaging) and Satellite Radio Communication

Developing and expanding the mobile radio communication is one of the priorities in developing communication services market.

Currently 3 cellular communication operators are available in the Republic of Belarus to provide services of four cellular communication networks of the following standards: JV Belcel, Ltd (NMT-450 network), JV Belcel, Ltd (IMT-MC-450), JV Mobile Digital Communication, Ltd (GSM 900/1800 network), JV Mobile TeleSystems, Ltd (GSM 900/1800 network).

The cellular communication operators in the Republic of Belarus provide a complete range of services for their subscribers, for example, the JV MDC, Ltd. provides WAP and GPRS services in addition to conventional services, while the JV BelCel, Ltd. provides mobile Internet services based on IMT-MC-450 network. In November 2004, the third operator of the 900/1800 MHz GSM standard was registered in Belarus — PJSC Belarusian Telecommunication Network.

The trunking-type national radiotelephone system based on the open European standard MPT 1327 operates in Belarus. The system operates in all Regional centers and in Minsk.

The radio communication networks based on local trunking communication system Rosa-T, produced by the Unitary Enterprise Les operate in towns and Regional centers since 1997. The system has been deployed at the beginning of 2005 and is being operated in 32 Districts of the country.

In November 1996, a complex of satellite-communications earth stations (SCES) — Teleport — was commissioned in Belarus. This complex was built since the SCES allow for communication with a number of regions worldwide which cannot be reached through cable systems or communication through them is not cost-effective.

2 commissioned satellite communication stations allow for six 2 Mbit/sstream, as well as reception and transmission through one television
channel. One station is integrated into the *Intersputnik* system and
services the Central Asia and the Indian Ocean states. The second station
is integrated into the *Intelsat* system to service the Atlantic Ocean and
Mediterranean Sea states through "705"satellite. The project of further
expansion of the *Teleport* including the television equipment has been
developed. The outer space component of the *Intersputnik* comprises
communication satellites of *Gorizont* and *Express*-type and also *Gals*type broadcasting satellites. The "fixing-mobile" channel has been
provided in the *Inmarsat* system allowing any telephone set of the
Belarusian public network to communicate with mobile terminals of
three *Inmarsat* system standards actually in any part of the world.

## National Data Transmission Network. Internet Network. New Communication Services

The priority sphere of the development of the BelPAK data transmission network is to expand to the maximum facilities and techniques of access to the Internet for all categories of users. The Belarusian national BelPAK network comprises 37 switch-ing points. The network is built by the radial-junction principle. The central junction is located in Minsk and all Regional junctions are interconnected using 8 Mbit/sstream SDH network.

The network was modernized in 2002. The reference network comprising 18 junctions interconnected with the optical-fiber lines with the data transmission rate of 1 Gbit/s has been built in Minsk. The total capacity in the BelPAK network is above 4 thousand ports. The network allows for providing a wide range of services using modern transports, including switched and non-switched access to the Internet.



In addition to the Republican Association *Unitary Enterprise Beltelecom*, 56 providers are licensed to provide Internet access services. The total number of Internet users exceeds 1.5 million. 130 points of the shared access to Internet services with 364 work stations operate in Belarus. The Internet is accessible throughout Belarus. The throughput of channels allowing connectivity to the Internet network is up to 300 Mbit/s.

The international Internet node equipment using two CISCO 7507 routers of the same type has been modernized. The systems of the non-switched Internet access specifically through the ISDN network — provider access — have been further expanded.

To provide higher-level Internet services in terms of speed and quality, the ADSL-access service is offered in Minsk and Regional centers.

The first stage of a principally new national system of the switched access to the Internet without a password has been commissioned. This system covers all Regional and District centers in Belarus. The specific feature of this access system is the absence of a contractual basis, that is, any individual may have access to the Internet if he/she has a computer, a modem and a telephone line. The Internet services are paid simultaneously with telephone services.

The server of the Administration of the President of the Republic of Belarus has been developed to inform local and foreign Internet users about the activity of the President, position of the Republic of Belarus regarding urgent issues of the domestic and foreign policy, its history and culture and integration processes with Russia. The server also provides the Internet users with the information regarding the structure and functioning of the supreme, executive, legislative and judicial authorities.

The problems relating to providing services to subscribers remotely located from the network switched centers (10–20 km) are being solved. To address this target, the Belarusian-British JV Business Network has been established with involvement of foreign investors. Perspective IP-telephony services have been launched for Saint-Petersburg and Leningradskaya Region (providing telephone calls through data transmission networks using the IP protocol). Commercial services of connecting users to the international Reuters agency and data transmission using Frame Relay technology have been initiated. The French SAGEM firm installed the international ELTEX telegraph station with 1,000 network entries that allowed telegraph networks ATA and TELEX to be combined and subscribers residing not only in Belarus, but in other countries to be connected.

Currently, the Republican Association *Unitary Enterprise Belte-lecom* operates about 10 thousand telegraph channels and about 3 thousand user's sets of the ATA/TELEX network, and 18 centers of the packet switching network.

#### Postal Communication and Philately

The postal communication in Belarus is state-regulated and is a unified network of postal communication enterprises operating as an integrated production complex. 118 city and district communication centers, 3,794 post-offices, including 3,024 rural post-offices and 42 mobile post-offices provide public postal communication services. Since 1993, the international Express Mail Service (EMS) was introduced in Belarus. The EMS network covers all Regional centers, as well as 110 settlements. The items of the Express Mail Service are mailed to 189 countries worldwide.

Since 1995, the local express mail service "mailed today-delivered today" and "mailed today-delivered tomorrow" was introduced. In 1995–1997, the ACS MZHD — POCHTA automated system of controlling the processes of reception, processing and mailing incoming, outgoing and transit dispatches with parcels and letters was developed and introduced.

Since 1993, the Belarusian postal service independently operates with all countries worldwide. The foreign economic activity is based on the Acts of the Universal Postal Union and on bilateral and multilateral operator agreements. The service of mailing Belarusian goods by international and intercity catalogs is offered in Belarus earning annually about USD 30 thousand. Since 1998, the list of countries, to and from which money may be transferred, was extended (currently 16 countries). Electronic transfers may be exchanged with 300 Russian cities and towns.

The thematic of postage stamps is diverse. They depict history, culture, flora, fauna, historical events, eminent persons and achievements in science, engineering and sport of the Republic of Belarus. The first Belarusian postage stamp was put into circulation 20 March 1992 — Cross of St. Efrasinnia of Polacak. Since that time, nearly 590 postage stamps and blocks have been put into circulation. The Belarusian philatelic products are distributed among foreign stamp collectors by the Association since 1996.

The Public Designing and Research Enterprise Giprosvyaz and Higher National Communication College form the sector's scientific and engineering potential. The journal Vestnik Suvyazi (Communication Herald) is issued.

E.N. Petrovsky

### Additional information:

 Ministry of Communication and Informatization of the Republic of Belarus

http://www.mpt.gov.by

## TOURISM

The development of Belarus as a tourist state is defined by its geographical location and continuously increasing significance as a transit country for moving people, transferring capital and handling commodities and services on the routes between West Europe and Russia, Scandinavia and Asia.

Belarus possesses exclusively high natural and historical and cultural potential being favorable for promotion of the international tourism. Belarus is characterized by a relatively mild climate, fine landscape in which floodplain lowland alternates with moraine ridges, meadows and wooded areas, abundance of rivers and lakes and by the absence of large mining and industrial areas. The republic has a compact area, a dense network of rural and urban (specifically small and medium) settlements,



and the developed infrastructure of road communications. Over 16 thousand historical and cultural monuments, nearly 100 centers of folk handicraft industries and crafts, dozens of spots of traditional weaving and embroidery, pottery, plaiting, saddlery and so forth are available in urban and rural areas. Alongside with wildlife areas and reserves, villages and towns form integrated sanctuaries in which the intact historical environment is interwoven with a traditional lifestyle.

Belarus is the country with ancient and rich history and original culture.





The following offers fine opportunities for promoting the cognitive tourism:

 historical and cultural monuments — historical center of Grodno (the city of superb kings' castles), monuments in Polotsk (spiritual source and first capital of the Belarusians), Nesvizh (the capital of the family of the Radzivills), Novogrudok, Mir Castle (included into the list

of the UNESCO world cultural heritage in 2000), fortress-type churches in Synkovichy and Muravanka, Brest Fortress, Lida Castle, Bobruisk fortress, monuments of Pinsk, Slonim (Northern Athens and Estate of Muses as it was named in the past), Mogilev, Gomel (palace and park ensemble in the classicism style, Peter and Paul Cathedral), Mstislavl and Vitebsk (the city of artists and poets where the world renowned artist Marc Chagall created his works);

 sites related to important historical events — Novogrudok (creation of the Grand Duchy of Lithuania), Grodno (the second and third division of Rzeczpospolita), Polotsk (the center of one of the most ancient Slavic Principalities), Zhirovichy (Zhirovichy Holy Assumption Monastery, location of the Zhirovichy God's Mother wonder-working icon), Brest (the 1596 Church Union, 1918 Peace Treaty between the Soviet Russia and Germany, heroic defense of the Brest Fortress in 1941), Khatyn Memorial (the village of Khatyn in which fascists burnt all residents in 1943);







- sites related to the names of prominent historical figures A. Mitskevich (Zaosiye, Novogrudok, the Svityaz lake, Shchorsy, Baltseniky, Tuganovichy), M. Oginsky (Slonim, Grodno, former family estate of the Oginskys in Zalessiye), E. Ozheshko (Milkovshchina, Grodno, Lyudvinovo, Zakozel), I. Domeiko (Medvedka, Shchuchin), F. Skaryna (Polotsk), Simeon Polotsky (Polotsk), T. Kostyushko (Kossovo, Syakhnovichy, Grodno), M. Chagall (Liozno, Vitebsk), Headquarters of Nikolas II in Mogiley;
- museums in Minsk, Grodno, Vitebsk, Polotsk, Gomel, Mogilev, Brest, Slonim, Novogrudok, Baranovichy, folk art museum in Raubichy, folk crafts museum in Vetka, Ya. Kupala sanctuary, Ya. Kolas reserve, and the museum of material culture in the village of Dudutky (40 km from Minsk at the picturesque bank of the Ptich river);
- centers of folk handicraft industry and crafts glass-manufacturing plants in Borisov and Berezovka, pottery and ceramic ware in Ivatsevichy, Bobruisk and Motol village, wood painting and carving in Ivenets and Budslav, inlaid work in Zhlobin, flax plaiting in Molodechno, weaving in Motol village, straw plaiting/inlaying in Mogilev, and souvenirs factories in Minsk, Brest, Pinsk and Gomel.

Belarus has high natural potential for tourism development. This includes spacious, well-maintained forest, forest-lake and forest-river natural complexes comprising natural monuments, diverse flora and fauna, natural medical resources (medicinal mineral water, mud-peat and sapropels), game and fish areas, picturesque landscapes offering good opportunities for walking, horseback, bike, water (boat, motor ship, kayak, sailing) tours, recreation and rehabilitation.

6.1% of the country's area are covered by specifically protected natural complexes, among which the most significant are the National Parks Belovezhskaya Pushcha, Narochansky, Braslav Lakes (pristine wilderness), Pripyatsky (unique combination of natural, cultural and historical heritage), Berezinsky Biosphere Reserve (a fine area of wilderness in the middle of Europe), Wildlife Reserves Nalibokskaya Pushcha, Blue Lakes and others.

The National Park Narochansky offers a year-round recreation. The spa zone accommodates guest cottages and recreational institutions, 26 tourist and recreation posts are constructed on the lake's picturesque banks, the visitors are offered game and fishing tours).

The National Park Belovezhskaya Pushcha (one of the first reserves in the world) offers tourists the Viskuly and Kamenyuky hotels, Count Tyshkevich House cottage and Pererov house.

More than 30 hunting reserves located in all regions of Belarus offer their services in organizing hunting tours. The ecological rural and sport tourism is developing.





The tourists may find interesting facts about the history of Belarus, its folk art, combat glory, culture and art by visiting 125 museums, 24 theatres and centers of folk handicraft industry and crafts in Minsk, Polotsk, Gomel, Mogiley, Brest and in many other towns and urban settlements.

Not only the capital of Belarus — Minsk, — but also Regional cities and provincial towns offer genuine Belarusian hospitality and comfort. The tourists may find accommodation in 265 hotels, 185 rest houses and 133 spas, over 3 thousand restaurants, cafes, bars and more than 200 large sports facilities offer their services.

Currently, to rationally use national sacred places and most valuable natural complexes, the tourist industry has been subject to restructuring to become an important component of recreation and health rehabilitation of the people, as well as a potential source of revenues to the national budget. Enabling environment is being created to attract investments to this sector.

The tourist service market based on new forms of business relations began to develop in the early 90s. The framework defining operation of tourist companies has been designed, tourist business licensing has been introduced, regulatory and legal acts regulating reception and servicing of foreign tourists, sport hunting and fishing for foreigners have been drawn up and put into effect, servicing standards in the hotel industry have been introduced and the problem of frontier openness and free crossing of the Belarusian border by foreigners has been settled.





At the current stage, the Government attributed great importance to establishing bilateral and multilateral relations with other states in the tourism sphere and promoting cooperation with international tourist agencies. Belarus has expanded the range of services provided to foreign tourists: hunting and fishing tourism, tourist recreation, various tours related to sport and cultural activities and congress tourism.

Currently, tourist facilities are being constructed and rehabilitated at a large scale, and an enabling environment for operation of tourist companies and advertising/information support of the country's tourist industry is being created.

Mountain skiing resorts Logoisk and Silichy, residence of Uncle Frost in Belovezhskaya Pushcha and tourist facilities in reserves have been built, the Augustovsky and Dnieper-Bug Canals are being restored, etc. The new hotels are intensively being built and old ones are being reconstructed, the best of them are located in Minsk, Vitebsk and Gomel and are certified as 3 and 4-star hotels.

The mountain skiing/sport/rehabilitation complex Logolsk is located 30 km north of the capital of Belarus in Minsk District. The most attractive natural feature of this area of Belarus is its relief for which it was named the Belarusian Switzerland. Owing to the natural landscape, the mountain skiing resort of the international level was built. The resort offers a comfortable 50-room hotel, a billiard room, a bar-cafe, wooden rest houses, a restaurant, a sauna, a hiring post, a children's playground, a 800-m long lighted route with an elevation difference of 80 m equipped with a ski lift, tubing, a parking and a lot more to the visitors.

The Uncle Frost residence in the National Park Belovezhskaya Pushcha began to function in December 2003. This cultural and tourist facility was smoothly integrated into the infrastructure of the entire tourist complex of Belovezhskaya Pushcha. It served as a basis for forming a new tradition of celebrating the New-Year festivities for adults and children. The residence comprises the estate of the Uncle Frost, the house of the Snow Girl, the Uncle Frost's museum, a windmill, a miracle well, wooden sculptural compositions 12 Months and Snow White and Seven Dwarfs, as well as a number of outlets, service and entertainment facilities. The 40-meter natural fir tree, the highest one in Europe, is located within the residence area. The Uncle Frost's residence operates all the year round.



Of great significance is the Trans-European Communication Corridor (TEC) — Paris — Berlin — Warsaw — Brest — Minsk — Orsha — Moscow. The major part of the transit tourist route *Belarusian Equator* runs through the TEC. Unique recreation and tourist resources not only of the national, but international significance are concentrated within the area of this corridor, with the tourist infrastructure being developed along it.

The Trans-European Communication Corridor with the tourist infrastructure to be formed on the west-east route is not the only transport tourist corridor in Belarus. The highway Saint-Petersburg — Vitebsk — Mogilev — Gomel — Kiev connecting Scandinavian countries with the Black Sea countries and being an ancient trade and cultural route to Europe is also of great significance. The tourists routes from Varangians to Greeks and Following the Ways of Vikings which are to become one of the most popular will run along the Belarusian section of the Vitebsk-Gomel Corridor. These future routes' novelty resides in a historical link of Belarus with ancient trade and cultural routes of Europe and East.

The following international tourists routes passing through the territory of 3–4 bordering member-countries of the Central European Initiative (CEI) were developed within the international integration program European Cultural Routes of the Council of Europe: Castles and Fortresses in the CEI Member-Countries and Churches and Cathedrals in Central Europe.

Belarus is consistently working on the integration into the international tourist community.

A number of intergovernmental agreements in the tourism sphere has been concluded in the recent years with the following countries: Moldova, India, Cyprus, Russia, Ukraine, Turkey, Poland, Romania, Syria, Yugoslavia, Latvia, Armenia, Tadiikistan, Kyrgyzstan, and Lithuania.

The agreements to be concluded with Estonia, Israel and Slovakia are under preparation.

Festivals and folklore festivities held in Belarus, including the International Festival of Arts Slavyansky Bazar in Vitebsk, international festivals of Medieval Age Culture in Nesvizh, Novogrudok and Zaslavl and national and international sport competitions are becoming attractive tourist events.

A number of projects being of primary importance for the tourism development are being implemented in Belarus within the framework of international programs (TACIS, UNDP, UNESCO). This includes, first of all, the development of a cultural and tourist zone based on the castle complexes of Mir and Nesvizh (Mir-Nesvizh) and commissioning of the Belarusian stretch of the Augustovsky Canal.

Over 500 legal entities and sole businessmen having the license of the Ministry of Sport and Tourism of the Republic of Belarus are involved in the tourist business in Belarus. The largest local tour operators owing a substantial part of the Belarusian infrastructure facilities include tourist agencies of the Trade Unions Federation of Belarus, Administration of Affairs of the President of the Republic of Belarus and the National Tourist Group Belinturist of the Ministry of Sport and Tourism.



The National Tourism Agency has been established to certify and standardize tourist services and retrain personnel.

The multidimensional problem Belarus faces in developing the tourist industry as one of the economy's priority sectors, the intersectoral character of the tourist industry and activity, importance of tourism for health rehabilitation and healthy way of life and for education of the rising generation through cognition of historical and cultural values, all this explains why the Government attributes such great attention to tourism.

V.I. Morozov, V.A. Yankovenko

# Additional information:

- Main Department Spa and Sanatorium Activities Center TsentrKurort Administration of Affairs of the President of the Republic of Belarus
  - http://www.otpusk.by
- National Tourism Agency of the Republic of Belarus http://www.touragency.by
- Republican Tourist Unitary Enterprise BELINTOURIST of the Republic of Belarus
   http://graysy.beliatourist.bu/
  - http://www.belintourist.by
- Tourist and Excursion private Unitary Enterprise Belarustourist http://www.belarustourist.net
- Public Commercial Unitary Enterprise Mogilevoblturist http://www.turist.cgis.by
- Non-Governmental Association Agro and Ecotourism http://www.ruralbelarus.by
- National Mountain Skiing Resort Center Silichy http://www.silichy.by